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PCT/US03/10916

SEQUENCE LISTING

10/510677

SEQ ID NO.: 1; AAC2-1 nucleotide sequence 5 AC TCGCCACTCCTCCGACGTGCTGGGCAACCTCAACGAGCTGCGCCTGCGCGGGATCCTCACTGACGTCACGCTGCT GG TTGGCGGGCAACCCCTCAGAGCACAAGGCAGTTCTCATCGCCTGCAGTGGCTTCTTCTATTCAATTTTCCGGG GC CGTGCGGGAGTCGGGGTGGACGTGCTCTCTCTGCCCGGGGGTCCCGAAGCGAGAGGCTTCGCCCCTCTATTGGAC 10 TT CATGTACACTTCGCGCCTGCGCCTCTCCCAGCCACTGCACCAGCAGTCCTAGCGGCCGCCACCTATTTGCAGAT GG AGCACGTGGTCCAGGCATGCCACCGCTTCATCCAGGCCAGCTATGAACCTCTGGGCATCTCCCTGCGCCCCCTGG 15 AA GCAGAACCCCCAACACCCCCAACGGCCCCTCCACCAGGTAGTCCCAGGCGCTCCGAAGGACACCCAGACCCACCT AC TGAATCTCGAAGCTGCAGTCAAGGCCCCCCCAGTCCAGCCCAGCCCTGACCCCAAGGCCTGCAACTGGAAAAAGTA CA AGTACATCGTGCTAAACTCTCAGGCCTCCCAAGCAGGAGCCTGGTCGGGGAGAGAAGTTCTGGTCAACCTTGCC 20 CC CC 25 CC ${\tt CCTACCTCACATCCCAGGCTCAAGACACCTCTGGATCACCCTCTGAACGGGCTCGTCCACTACCGGGAGTGA}$ AT TTTTCAGCTGCCAGAACTGTGAGGCTGTGGCAGGGTGCTCATCGGGGGCTGGACTCCTTGGTTCCTGGGGACGAA GA CAAACCCTATAAGTGTCAGCTGTGCCGGTCTTCGTTCCGCTACAAGGGCAACCTTGCCAGTCACCGTACAGTGCA 30 CA CAGGGGAAAAGCCTTACCACTGCTCAATCTGCGGAGCCCGTTTTAACCGGCCAGCAAACCTGAAAACGCACAGCC GC ATCCATTCGGGAGAGAGCCGTATAAGTGTGAGACGTGCGGCTCGCGCTTTGTACAGGTGGCACATCTGCGGGCG 35 CGTGCTGATCCACACCGGGGAGAAGCCCTACCCTTGCCCTACCTGCGGAACCCGCTTCCGCCACCTGCAGACCCT CA ${\tt AGAGCCACGTTCGCATCCACACCGGAGAGAGCCTTACCACTGCGACCCCTGTGGCCTGCATTTCCGGCACAAGA}$ GT CAACTGCGGCTGCATCTGCGCCAGAAACACGGAGCTGCTACCAACACCAAAGTGCACTACCACATTCTCGGGGGG 40 CC $\tt CTAGCTGAGCCCAGGCCCACTTGCTTCCTGCGGGTGGGAAAGCTGCAGGCCCAGGCCTTGCTTCCCTA$ TC AGGCTTGGGCATAGGGGTGTGCCAGGCCACTTTGGTATCAGAAATTGCCACCCTCTTAATTTCTCACTGGGGAGA 45 GC AGGGGTGGCAGATCCTGGCTAGATCTGCCTCTGTTTTGCTGGTCANACCCTCTTCCCCACAAGCCAGATTGTTTC TG AGGAGAGAGCTAGCTAGGGGCTGGGAAAGGGGAGAGATTGGAGTCCTGGTCTCCCTAAGGGAATAGCCCTCCACC TG TGGCCCCCATTGCATTCAGTTTATCTGTAAAATATAATTTATTGAGGCCTTTGGGTGGCACCGGGGCCTTCATTC 50 TTGCATTTCCCACTCCCCTCTTCCACAAGTGTGATTAAAAGTGACCAGAAACACAGAAGGTGAGATCACAGCTCT TGGCAGAGATTACTAGCCCTTGGCTCTCTCGTTTGGCTTGGGTATTTTATATTATTTCTGTCATAACTTTTATCT

AGAATTGTTCTTCTCCTGTTTGTTTGCTTGTTTAGTTTTAAAATGGAAAAAGGGGTTCTCTGTGTTCTGCCCCGTAATTCTAGGTCTGGAACCTTTATTTGTTCTAGGGCAGCTCTGGGAACATGCGGGATTGTGGAATTGGGTCAGG

AA

SEQ ID NO.: 2; AAC2-2 Open reading frame ATGGGTTCCCCCGCCGCCCCGGAGGGAGCGCTGGGCTACGTCCGCGAGTTCACTCGCCACTCCTCCGACGTGCTGGGCAACCT $\tt CCCGAAGCGAGGGCTTCGCCCCTCTATTGGACTTCATGTACACTTCGCGCCTGCGCCTCTCTCCAGCCACTGCACCAGCAGT$ ${\tt CCTAGCGGCCACCTATTTGCAGATGGAGCACGTGGTCCAGGCATGCCACCGCTTCATCCAGGCCAGCTATGAACCTCTGG}$ GCATCTCCCTGCGCCCCTGGAAGCAGAACCCCCAACACCCCCAACGGCCCCTCCACCAGGTAGTCCCAGGCGCTCCGAAGGA GAAAAAGTACAAGTACATCGTGCTAAACTCTCAGGCCTCCCAAGCAGGGAGCCTGGTCGGGGAGAAAAGTTCTGGTCAACCTT 10 CACATCCCAGGCTCAAGACACCTCTGGATCACCCTCTGAACGGGCTCGTCCACTACCGGGAAGTGAATTTTTCAGCTGCCAGA ${\tt ACTGTGAGGCTGTGGCAGGGTGCTCATCGGGGGCTGGACTCCTTGGTTCCTGGGGACGAAGACAAACCCTATAAGTGTCAGCTG}$ TGCCGGTCTTCGTTCCGCTACAAGGGCAACCTTGCCAGTCATCGTACAGTGCACACAGGGGAAAAGCCTTACCACTGCTCAAT 15 CTGCGGAGCCCGTTTTAACCGGCCAGCAAACCTGAAAACGCACAGCCGCATCCATTCGGGAGAGAAGCCGTATAAGTGTGAGA CGTGCGGCTCGCGCTTTGTACAGGTGGCACATCTGCGGGCGCACGTGCTGATCCACACCGGGGAGAAGCCCTACCCTTGCCCT ACCTGCGGAACCCGCTTCCGCCACCTGCAGACCCTCAAGAGCCACGTTCGCATCCACACCGGAGAGAAGCCTTACCACTGCGA CCCCTGTGGCCTGCATTTCCGGCACAAGAGTCAACTGCGGCTGCATCTGCGCCAGAAACACGGAGCTGCTACCAACACCAAAG TGCACTACCACATTCTCGGGGGGCCCTAG 20

SEQ ID NO.: 3; 7524
ATACCCGGAACTCCTAAGCCTTCTATTAGCTCCAATAATAGTAAGCCTGTCGAAGACAAAGATG

- 25 SEQ ID NO.: 4; 7526
 GCCTGTGTCCCCTAGACTCCAACTCAGCAACGGAAATAGAACTCTGACCCTGTTTAACGTGACCAGGAAC
 - SEQ ID NO.: 5; 7528
 ACGTGCTTTACGGACCCGATGCTCCTACAATCAGCCCTCTAAACACAAGCTATAGATCAGGGGAAAATCT
- SEQ ID NO.: 7; 7535
 CTGATCTATAGCTTGTGTTTAGAGGGCTGATTGTAGGAGCATCGGGTCCGTAAAGCACGTTGAGAATCAC
 - SEQ ID NO.: 8; 7537
 GATCCACTATTGTTCACGGTAATATTGGGAATGAACAGTTCCTGGGTGGACTGTTGGAAAGTG
- 40 SEQ ID NO.: 9; 7567
 GACACAGCAAGCTACAAATGCGAAACCCAAAATCCAGTCAGCGCCAGGAGGTCTGATTCAGTGATTCTCA
 - SEQ ID NO.: 10; 7568
 TGAATCAGACCTCCTGGCGCTGACTGGATTTTGGGTTTCGCATTTGTAGCTTGCTGTCCTGGTC
- 45

 SEQ ID NO.: 11; 7576

 GATCCTACACGTGCCAAGCTCACAATAGCGACACCGGACTCAACCGCACAACCGTGACGACGATTACCGTGTATG
 CCGA
- 50 SEQ ID NO.: 12; 7587 CATCCTCAACTGGGTTAGAATTGTTACTAGTTATGAATGGTTTTGGTGGCTCGGCATACACGGTAATCGT
- SEQ ID NO.: 14; 7678

 GTCTAATGATAACCGCACATTGACACTCCTGTCCGTTACTCGCAATGATGTAGGACCTTATGAGTGTGGCATTCA

 GAATG

SEQ ID NO.: 15; 7679
TTTGTATGGCCCAGACGACCCAACTATATCTCCATCATACACCTACTACCGTCCCGGCGTGAACTTGAGCCTTTC

- 5 SEQ ID NO.: 16; 7680
 TGATGGAAACATTCAGCAGCATACTCAAGAGTTATTTATAAGCAACATAACTGAGAAGAACAGCGGACTCTATAC
 TTGCC
- SEQ ID NO.: 17; 7681
 TAAAACAATAACTGTTTCCGCGGAGCTGCCCAAGCCCTCCATCTCCAGCAACAACTCCAAACCCGTGGAGGACAA
 GGATG
- 20
 SEQ ID NO.: 20; 7684
 GCTGCTGAATGTTTCCATCAATCAGCCAGGAGTACTGTGCAGGGGGGTTGGATGCTGCATGGCAAGAAAGGCTCA
 AGTTC
- 25 <u>SEQ ID NO.: 21; 7685</u> CGGAAACAGTTATTGTTTTAACTGTAGTCCTGCTGTGACCACTGGCTGAGTTATTGGCCTGGCAAGTATAGAGTC CGCTG
- SEQ ID NO.: 22; 7686
 CCTCAGGTTCACAGGTGAAGGCCACAGCATCCTTGTCCTCCACGGGT

SEQ ID NO .: 23; CEA-CAP6D ATGGAGTCTC CCTCGGCCCC TCCCCACAGA TGGTGCATCC CCTGGCAGAG GCTCCTGCTC ACAGCCTCAC TTCTAACCTT CTGGAACCCG CCCACCACTG CCAAGCTCAC TATTGAATCC ACGCCGTTCA ATGTCGCAGA GGGGAAGGAG GTGCTTCTAC TTGTCCACAA TCTGCCCCAG 35 CATCTTTTTG GCTACAGCTG GTACAAAGGT GAAAGAGTGG ATGGCAACCG TCAAATTATA GGATATGTAA TAGGAACTCA ACAAGCTACC CCAGGGCCCG CATACAGTGG TCGAGAGATA ATATACCCCA ATGCATCCCT GCTGATCCAG AACATCATCC AGAATGACAC AGGATTCTAC ACCCTACACG TCATAAAGTC AGATCTTGTG AATGAAGAAG CAACTGGCCA GTTCCGGGTA TACCCGGAGC TGCCCAAGCC CTCCATCTCC AGCAACAACT CCAAACCCGT GGAGGACAAG 40 GATGCTGTGG CCTTCACCTG TGAACCTGAG ACTCAGGACG CAACCTACCT GTGGTGGGTA AACAATCAGA GCCTCCCGGT CAGTCCCAGG CTGCAGCTGT CCAATGGCAA CAGGACCCTC ACTCTATTCA ATGTCACAAG AAATGACACA GCAAGCTACA AATGTGAAAC CCAGAACCCA GTGAGTGCCA GGCGCAGTGA TTCAGTCATC CTGAATGTCC TCTATGGCCC GGATGCCCCC ACCATTTCCC CTCTAAACAC ATCTTACAGA TCAGGGGAAA ATCTGAACCT CTCCTGCCAC 45 GCAGCCTCTA ACCCACCTGC ACAGTACTCT TGGTTTGTCA ATGGGACTTT CCAGCAATCC ACCCAAGAGC TCTTTATCCC CAACATCACT GTGAATAATA GTGGATCCTA TACGTGCCAA GCCCATAACT CAGACACTGG CCTCAATAGG ACCACAGTCA CGACGATCAC AGTCTATGAG CCACCCAAAC CCTTCATCAC CAGCAACAAC TCCAACCCCG TGGAGGATGA GGATGCTGTA GCCTTAACCT GTGAACCTGA GATTCAGAAC ACAACCTACC TGTGGTGGGT AAATAATCAG 50 AGCCTCCCGG TCAGTCCCAG GCTGCAGCTG TCCAATGACA ACAGGACCCT CACTCTACTC AGTGTCACAA GGAATGATGT AGGACCCTAT GAGTGTGGAA TCCAGAACGA ATTAAGTGTT GACCACAGCG ACCCAGTCAT CCTGAATGTC CTCTATGGCC CAGACGACCC CACCATTTCC CCCTCATACA CCTATTACCG TCCAGGGGTG AACCTCAGCC TCTCCTGCCA TGCAGCCTCT AACCCACCTG CACAGTATTC TTGGCTGATT GATGGGAACA TCCAGCAACA CACACAAGAG 55 CTCTTTATCT CCAACATCAC TGAGAAGAAC AGCGGACTCT ATACCTGCCA GGCCAATAAC TCAGCCAGTG GCCACAGCAG GACTACAGTC AAGACAATCA CAGTCTCTGC GGAGCTGCCC AAGCCCTCCA TCTCCAGCAA CAACTCCAAA CCCGTGGAGG ACAAGGATGC TGTGGCCTTC ACCTGTGAAC CTGAGGCTCA GAACACAACC TACCTGTGGT GGGTAAATGG TCAGAGCCTC CCAGTCAGTC CCAGGCTGCA GCTGTCCAAT GGCAACAGGA CCCTCACTCT ATTCAATGTC 60

ACAAGAAATG ACGCAAGAGC	CTATGTATGT	GGAATCCAGA	ACTCAGTGAG	TGCAAACCGC	
AGTGACCCAG TCACCCTGGA	TGTCCTCTAT	GGGCCGGACA	CCCCCATCAT	TTCCCCCCCA	•
GACTCGTCTT ACCTTTCGGG	AGCGGACCTC	AACCTCTCCT	GCCACTCGGC	CTCTAACCCA	
TCCCCGCAGT ATTCTTGGCG					
ATCGCCAAAA TCACGCCAAA					
ACTGGCCGCA ATAATTCCAT	AGTCAAGAGC	ATCACAGTCT	CTGCATCTGG	AACTTCTCCT	
GGTCTCTCAG CTGGGGCCAC	TGTCGGCATC	ATGATTGGAG	TGCTGGTTGG	GGTTGCTCTG	ATATAG

	SEQ ID NO.:						
10	ATGGAGTCTC	CCTCGGCCCC	TCCCCACAGA	TGGTGCATCC	CCTGGCAGAG	GCTCCTGCTC	
	ACAGCCTCAC	TTCTAACCTT	CTGGAACCCG	CCCACCACTG	CCAAGCTCAC	TATTGAATCC	
	ACGCCGTTCA	ATGTCGCAGA	GGGGAAGGAG	GTGCTTCTAC	TTGTCCACAA	TCTGCCCCAG	
	CATCTTTTTG	GCTACAGCTG	GTACAAAGGT	GAAAGAGTGG	ATGGCAACCG	TCAAATTATA	
	GGATATGTAA	TAGGAACTCA	ACAAGCTACC	CCAGGGCCCG	CATACAGTGG	TCGAGAGATA	
15	ATATACCCCA	ATGCATCCCT	GCTGATCCAG	AACATCATCC	AGAATGACAC	AGGATTCTAC	
	ACCCTACACG	TCATAAAGTC	AGATCTTGTG	AATGAAGAAG	CAACTGGCCA	GTTCCGGGTA	
	TACCCGGAAC	TCCCTAAGCC	TTCTATTAGC	TCCAATAATA	GTAAGCCTGT	CGAAGACAAA	
	GATGCCGTCG	CTTTTACATG	CGAGCCCGAA	ACTCAAGACG	CAACATATCT	CTGGTGGGTG	
	AACAACCAGT	CCCTGCCTGT	GTCCCCTAGA	CTCCAACTCA	GCAACGGAAA	TAGAACTCTG	
20	ACCCTGTTTA	ACGTGACCAG	GAACGACACA	GCAAGCTACA	AATGCGAAAC	CCAAAATCCA	
	GTCAGCGCCA	GGAGGTCTGA	TTCAGTGATT	CTCAACGTGC	TTTACGGACC	CGATGCTCCT	
	ACAATCAGCC	CTCTAAACAC	AAGCTATAGA	TCAGGGGAAA	ATCTGAATCT	GAGCTGTCAT	
	GCCGCTAGCA	ATCCTCCCGC	CCAATACAGC	TGGTTTGTCA	ATGGCACTTT	CCAACAGTCC	
	ACCCAGGAAC	TGTTCATTCC	CAATATTACC	GTGAACAATA	GTGGATCCTA	CACGTGCCAA	
25	GCTCACAATA	GCGACACCGG	ACTCAACCGC	ACAACCGTGA	CGACGATTAC	CGTGTATGAG	
	CCACCAAAAC	CATTCATAAC	TAGTAACAAT	TCTAACCCAG	TTGAGGATGA	GGACGCAGTT	
	GCATTAACTT	GTGAGCCAGA	GATTCAAAAT	ACCACTTATT	TATGGTGGGT	CAATAACCAA	
	AGTTTGCCGG	TTAGCCCACG	CTTGCAGTTG	TCTAATGATA	ACCGCACATT	GACACTCCTG	
	TCCGTTACTC	GCAATGATGT	AGGACCTTAT	GAGTGTGGCA	TTCAGAATGA	ATTATCCGTT	
30	GATCACTCCG	ACCCTGTTAT	CCTTAATGTT	TTGTATGGCC	CAGACGACCC	AACTATATCT	
	CCATCATACA	CCTACTACCG	TCCCGGCGTG	AACTTGAGCC	TTTCTTGCCA	TGCAGCATCC	
	AACCCCCCTG	CACAGTACTC	CTGGCTGATT	GATGGAAACA	TTCAGCAGCA	TACTCAAGAG	
	TTATTTATAA	GCAACATAAC	TGAGAAGAAC	AGCGGACTCT	ATACTTGCCA	GGCCAATAAC	
	TCAGCCAGTG	GTCACAGCAG	GACTACAGTT	AAAACAATAA	CTGTTTCCGC	GGAGCTGCCC	
35	AAGCCCTCCA	TCTCCAGCAA	CAACTCCAAA	CCCGTGGAGG	ACAAGGATGC	TGTGGCCTTC	
	ACCTGTGAAC	CTGAGGCTCA	GAACACAACC	TACCTGTGGT	GGGTAAATGG	TCAGAGCCTC	
	CCAGTCAGTC	CCAGGCTGCA	GCTGTCCAAT	GGCAACAGGA	CCCTCACTCT	ATTCAATGTC	
	ACAAGAAATG	ACGCAAGAGC	CTATGTATGT	GGAATCCAGA	ACTCAGTGAG	TGCAAACCGC	
	AGTGACCCAG	TCACCCTGGA	TGTCCTCTAT	GGGCCGGACA	CCCCCATCAT	TTCCCCCCCA	
40	GACTCGTCTT	ACCTTTCGGG	AGCGGACCTC	AACCTCTCCT	GCCACTCGGC	CTCTAACCCA	
	TCCCCGCAGT	ATTCTTGGCG	TATCAATGGG	ATACCGCAGC	AACACACACA	AGTTCTCTTT	
	ATCGCCAAAA	TCACGCCAAA	TAATAACGGG	ACCTATGCCT	GTTTTGTCTC	TAACTTGGCT	
	ACTGGCCGCA	ATAATTCCAT	AGTCAAGAGC	ATCACAGTCT	CTGCATCTGG	AACTTCTCCT	
	GGTCTCTCAG	CTGGGGCCAC	TGTCGGCATC	ATGATTGGAG	TGCTGGTTGG	GGTTGCTCTG	ATATAG